

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of the claims in this application:

Listing of Claims:

Claim 1 (currently amended): A gas or liquid flow sensor, comprising:

(i) a non-conductive flexible substrate;

(ii) a flexible transducer formed on the substrate, wherein said transducer comprises a resistive transducer;

(iii) at least one flexible lead connecting the substrate to a mounting portion of the sensor; and

(iv) first and second electrical contacts in electrical communication with the transducer;

wherein the substrate and the flexible lead are displaceable in a the presence of a stream of moving gas or liquid causing flexure of the transducer and changing an electrical value of the transducer.

Claim 2 (previously presented): The sensor according to claim 1 wherein a protective covering covers at least a portion of the flexible transducer.

Claim 3 (currently amended): The sensor according to claim 1 wherein said ~~the~~ gas is air.

Claim 4 (cancelled)

Claim 5 (cancelled)

Claim 6 (cancelled)

Claim 7 (cancelled)

Claim 8 (cancelled)

Claim 9 (cancelled)

Claim 10 (cancelled)

Claim 11 (cancelled)

Claim 12 (cancelled)

Claim 13 (cancelled)

Claim 14 (previously presented): The sensor according to according to claim 1 wherein at least one of the first and second electrical contacts are affixed to the mounting portion.

Claim 15 (previously presented): The sensor according to according to claim 1 wherein the electrical value of the flexible transducer changes relative to the flexure of at least the flexible substrate.

Claim 16 (previously presented): The sensor according to according to claim 1 wherein the flexible substrate substantially returns to an original orientation when a bending force impinging the flexible substrate is removed.

Claim 17 (currently amended): The sensor according to according to claim 4 55 wherein said non-conductive ~~the~~ flexible substrate is made of polyimide.

Claim 18 (previously presented): The sensor according to according to claim 1 wherein the sensor forms at least a portion of a one-way valve in a stream of moving gas.

Claims 19 – 45 (cancelled)

Claim 46 (previously presented): The sensor according to claim 1 wherein the flexible transducer includes a portion formed on the flexible lead.

Claim 47 (previously presented): The sensor according to claim 1 wherein the flexible substrate and the flexible lead are integral to one another.

Claim 48 (previously presented): The sensor according to claim 1 wherein the electrical value of the flexible transducer changes relative to the flexure of the flexible substrate and the flexible lead.

Claim 49 (new): The sensor according to Claim 1 wherein said sensor is disposed in a pulmonary medication delivery device.

Claim 50 (new): The sensor according to Claim 49 wherein said pulmonary medication delivery device is an electrohydrodynamic aerosolization device.

Claim 51 (new): The sensor according to Claim 50 wherein said electrohydrodynamic aerosolization device is a hand-held device.

Claim 52 (new): The sensor according to Claim 1 wherein said transducer consists of a resistive ink or a resistive elastomer.

Claim 53 (new): The sensor according to Claim 52 wherein said resistive transducer is a resistive ink.

Claim 54 (new): The sensor according to Claim 53 wherein said resistive ink comprises conductive carbon particles in a binder.

Claim 55 (new): The sensor according to Claim 53 wherein said non-conductive flexible substrate is made of a material selected from the group consisting of a polyester, polyimide and a fluoropolymer.

Claim 56 (new): The sensor according to claim 1 wherein the first and second electrical contacts are affixed to the first side of the flexible substrate; wherein a third electrical contact and a fourth electrical contact are affixed to the second side of the flexible substrate; and wherein said third electrical contact is in electrical communication with said first electrical contact and said fourth electrical contact is in electrical communication with said second electrical contact.

Claim 57 (new): The sensor according to claim 1 wherein the body of the sensor is generally rectangular, circular, triangular, elliptical, polygonal, trapezoidal, U-shaped, and parallelogram in shape.

Claim 58 (new): The sensor according to claim 1 wherein the body of the sensor is generally rectangular in shape.